Healthy Planet, Healthy People

A Discussion Paper Prepared for the Alberta Conservation Strategy Project

Healthy Planet, Healthy People

Prepared by
Pollution Sub-Committee
Public Advisory Committees to the Environment Council of Alberta

Published by
Environment Council of Alberta

November 1989

Distributed without charge as a public service.

90-03246/

Additional copies of this publication may be obtained from:

Environment Council of Alberta
8th Floor Weber Centre
5555 Calgary Trail Southbound NW
Edmonton, Alberta
T6H 5P9

Phone (403) 427-5792

Orders may also be placed through our electronic bulletin board at (403) 438-5793 (24 hours per day).

This report may be cited as:

Pollution Sub-Committee, Public Advisory Committees to the Environment Council of Alberta. 1989. *Healthy Planet, Healthy People.* ECA89-PA/CS-S13. Environment Council of Alberta. Edmonton.

ECA89-PA/CS-S13

FOREWORD

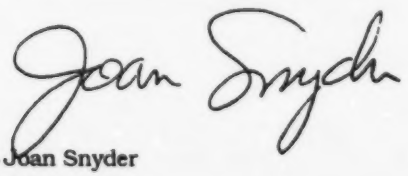
In late 1985, the Public Advisory Committees to the Environment Council of Alberta began working toward a draft conservation strategy for Alberta. The Public Advisory Committees (PACs), comprising representatives of some 120 non-government organizations, are in many ways an ideal organization for developing a strategy that should touch the lives of all Albertans. The PACs bring together many diverse viewpoints, we are non-partisan, and we have members from across the province. Since the early days of the project, we have welcomed non-PAC participants, and have been delighted to receive the contributions of civil servants, industry spokespeople, academics, and the general public.

We have made progress since 1985: the *Prospectus for an Alberta Conservation Strategy* has been published and many meetings and workshops have been held. The principle of a conservation strategy increasingly has been endorsed by Albertans, and Alberta has been recognized across Canada as a leader in conservation strategy development. There have been important related events. For example, in September of 1987, every environment minister in Canada endorsed the final report of the National Task Force on Environment and Economy, which recommended that conservation strategies be in place in every province and territory by 1992. This same report was endorsed by the First Ministers at their November, 1987 meeting.

We will have a conservation strategy for Alberta, we hope by 1990. Our work continues in the expectation that all those who are interested will have a chance to contribute to the project, through public hearings or some other public participation process.

Since the publication of the *Prospectus*, the PACs have concentrated on preparing sectoral discussion papers. The Conservation Strategy Steering Committee determined early on to produce background papers on relevant sectors, such as agriculture, fish and wildlife, tourism, oil and gas, and others. These discussion papers look at the issues within each sector, but, more importantly, they investigate the interaction of each sector with the others. Their preparation has involved consulting with a wide range of interest groups — a conservation strategy principle in action — which has proven fruitful in developing ideas about the ultimate conservation strategy. These discussion papers will be used as background information for drafting a conservation strategy document and, perhaps, in the future, in public hearings on the draft conservation strategy. This report is one in the series of discussion papers.

Because there are as many opinions on our best future direction as there are Albertans, we welcome comments. The conservation strategy will be only as good as the work that goes into preparing it. Please address any comments on this discussion paper or others in the series to the Environment Council of Alberta at the address given on the page opposite. I would also encourage you to make your opinions known at public hearings or other events as they are held. Let's treat Alberta as if we plan to stay!



Joan Snyder
Chairperson
Conservation Strategy Steering Committee
Public Advisory Committees to the Environment Council of Alberta

ABOUT THIS DISCUSSION PAPER

Health and the environment are closely connected in peoples' minds and in reality. The environment plays an important role in maintaining our physical, mental, and emotional health, and health attitudes play a role in how we shape our environment. This paper discusses some of these links and points out why people working in the health and environmental areas should expect to have strong allies in each other. It briefly examines the healthy communities movement in Canada and in Alberta, with reference to the Ottawa Charter for Health Promotion and the guidelines it offers for working toward healthy communities. When it comes to resolving health protection and promotion issues and environmental conservation controversies, there is a good deal of common ground: the need for healthy public policy, the need to avoid fragmented or redundant programs and policies, the need to ensure accountability in decision making, and the need to provide opportunities for meaningful public participation.

ACKNOWLEDGEMENTS

The Pollution Sub-Committee is pleased to put this paper forward for public discussion at a time when interest in the environment is very high. We believe much progress can be made in protecting the environment and promoting health if both groups can recognize their strengths and work together. The collaboration that was part of preparing this paper reflects this spirit of cooperation. We are indebted to the many people who reviewed the manuscript and provided valuable comments. Their insight improved the paper a great deal, but the contents are our responsibility and do not necessarily reflect the views of the people we gratefully acknowledge below.

Ann Goldblatt, Health Promotion Consultant, and Nancy Kotani, Health Promotion Director, Edmonton Board of Health; John Copoc; Mike Kelly, a senior research officer with the Environment Council when the paper was begun, but now with the Secretariat to the National Round Table on Environment and Economy; Norm Carlson, Inspection Division, Calgary Health Services; the Alberta Association of Registered Nurses; Susan Morrow; Dr. Sheri Dalton of the Science Advisory Committee to the ECA; and Pat Popkoe, Maxine Munroe, Carol Sims, and Donna Fleming of the Sturgeon Health Unit.

Finally we would like to thank Shirley Henderson, the sector leader and our representative on the Alberta Conservation Strategy Steering Committee, for her efforts in guiding this paper through to completion. Kim Sanderson of the ECA assisted in preparing and revising the manuscript, and we also appreciate the contribution of other ECA staff in reviewing, formatting, editing, and distributing this paper.

November 1989

Contents

1. Introduction 1

2. The Links Between Health and Environment 2

Health and Sustainable Development 3

3. Measuring Health and Making the Connections 5

The Question of Responsibility 7

4. Healthy Communities 9

The Community as an Ecosystem 9

A Healthy Community Described 9

Working Toward Healthy Communities 10

Healthy Communities in Alberta 11

An Example 12

5. Towards the Goal: Healthy Communities and Sustainable Development 13

Common Goals and High-Priority Actions 13

6. Conclusion 15

Bibliography 16

Appendix A. Sources of Information 17

Appendix B. Members of the Pollution Sub-Committee 18

Chapter One

Introduction

Gro Harlem Brundtland, Chair of the U.N. World Commission on Environment and Development, commented at the World Health Assembly in 1988: "Recently, I was asked why health was not one of these issues [in the Commission's landmark report, "Our Common Future"]. My reply is: ultimately, the whole report is about health."

Health and environment have always been linked — whether health is an environmental concern or the environment is a health issue matters not. What is important is that health personalizes environmental problems. People everywhere place a high value on their own health and that of their families, and thus are likely to be concerned about environmental problems they perceive to have a direct effect or potential effect on health. Health is the common concern when Canadians talk about environmental issues ranging from air and water quality to agriculture and food. Indeed, "the top priorities of the public relate to 'health issues,' and more particularly to the problems of toxic chemical pollution of the air and water and concerns about threats to the security of a clean water supply" (Decima Research 1987: 31).

But good health is more than just freedom from disease; mental and emotional health as well as physical well-being are essential if we are to live productive and satisfying lives. Now that health generally is seen in this more holistic sense, it could be argued that virtually all environmental problems relate in some way to human vitality. While this is a human-centered view, it may be the only argument strong enough to provoke the urgent and serious response now needed to protect the global environment. Like it or not, human beings have become Earth's dominant species, and the future quality of life for us and the survival of others on the planet unquestionably will be linked to our actions.

This discussion paper is one in a series prepared as part of the Alberta Conservation Strategy project. It looks briefly at some of the connections between health and environment, and attempts to put these connections succinctly and explicitly, stressing to readers the importance of the environment to their own health and to that of their families and the communities in which they live. Many other factors also impinge on health and are related to the environment in a broad sense, including occupational health and safety, and socioeconomic conditions such as poverty, hunger, education, literacy, and homelessness. It is beyond the scope of this short paper to examine these large and complex topics, and readers who want more information are urged to consult the sources listed in Appendix A, the references, or their local library. For the purposes of this paper, "environment" is used primarily to mean the natural world around us.

Chapter Two

The Links Between Health and Environment

As environmentalists have recognized the importance of health, so too have environmental issues taken on more significance for the health sector. The Ottawa Charter for Health Promotion (1986) notes that a stable ecosystem and sustainable resources are prerequisites for health, stating further that "the protection of the natural and built environments and the conservation of natural resources must be addressed in any health promotion strategy" (page 2).

The relationship between physical health and the environment became readily apparent more than a century ago when poor sanitation and other aspects of crowded living conditions were linked with diseases such as cholera, typhoid feaver, smallpox, and dysentery. Subsequent improvements in civil engineering, technology, and regulation largely eliminated or ameliorated the conditions that led to disease outbreaks. Efforts to improve individual and community health meant cleaning up the local environment to ensure that people had clean water to drink and clean air to breathe. The leadership of local agencies and authorities was largely responsible for these improvements. As Dr. Jessie Parfit (1986) stated, in reference to England, "Many would be surprised to learn that the greatest contribution to the health of the nation over the past 150 years was made, not by doctors and hospitals, but by local government."

After the most obvious health threats — those related to sanitation, safety, and hygiene — had been addressed, the next big success in reducing death rates came as a result of advances that were related directly to medicine, for example, better surgical techniques, and introduction of antibiotics and vaccines. This success shifted the focus away from public health with its traditional emphasis on the environment and community approaches, to a more institutional treatment of disease and illness. This shift has become entrenched to the point where a mere four percent of the Canadian health care budget is being spent on health promotion and disease prevention (Rachlis and Kushner 1989).

Now the pendulum seems to be shifting again, as we realize there may be more intricate and more global connections between the environment and current health issues such as cancer, stress, and immune system disorders, including allergies. The cause and effect relationship is often more difficult to pinpoint for these threats than it was for many of the gross threats to health, as several factors may be interacting in unpredictable ways.

"Many would be surprised to learn that the greatest contribution to the health of the nation [England] over the past 150 years was made, not by doctors and hospitals, but by local government."

The environment's contribution to our mental health is even more difficult to recognize and quantify. What is the value of wildlife, wilderness, or safe, clean public spaces to our mental or emotional well-being? Mountain landscapes, prairie sunsets, or colorful autumn leaves, for

example, inevitably lift the human spirit. In our rapidly changing world, the beauty and constancy of nature are important touchstones, and are as important to our mental health as clean water is to our physical health. The growing interest of Canadians and many other people in nature-related activities such as birdwatching, hiking, and eco-tourism reflects the importance of the environment in meeting some of our very deep-seated non-material needs.

One of the axioms of ecology is that everything is connected to everything else; thus you can never do merely one thing. This is an important message of the Alberta Conservation Strategy, and highlighting the importance of good environmental decision making to our health is another way of ensuring that the message is heard by more people. Protecting our own health and that of our families and future generations means that we must pay more attention to these connections and ask ourselves what the consequences of our actions will be.

Health and Sustainable Development

Good health is similar to sustainable development — it's hard to know when you have it, but it's easy to tell when you don't. Symptoms such as fever, cramps, and rashes suggest that you are not well. But the absence of obvious symptoms doesn't guarantee that nothing is wrong. Similarly, clouds of smog, sludge in the water, and heavy metals in fish tell us something is wrong, but the absence of obvious pollution doesn't necessarily mean our ecosystems are healthy. Just as health is more than freedom from disease, sustainable use of resources is much more than the absence of pollution.

The Alberta Conservation Strategy project has defined sustainable development as "management of resources in such a way that we can fulfill our economic, social, cultural, and aesthetic needs while maintaining the essential ecological processes, biological diversity, and naturally occurring life-support systems in Alberta."

While some economic development is needed to fulfill our basic survival needs, this development cannot continue to occur at the expense of the environment. In other words, we must have both conservation and development to ensure that we and our descendants have the opportunity to live full, productive, happy, healthy, and long lives.

Subtle health effects of environmental degradation gradually diminish our quality of life rather than threaten life immediately and directly. The direct correlations between environment and health can be hard to find; so solutions tend to deal with symptoms rather than causes. In the past, economic, social, and aesthetic losses caused by environmental deterioration often were disregarded or downplayed, or viewed as the price of progress. Until, or unless, clear and damaging health links were demonstrated, action was not forthcoming, and by then much damage might have occurred.

The "anticipate and prevent" approach has been for some time a basic tenet for promoting health, but only recently has it emerged as an adoptable philosophy in addressing environmental concerns. For example, the small amount of time, money, and pain involved in an immunization is clearly preferable to the suffering that normally accompanies disease. Similarly, the effort and cost that go into anticipating potential environmental problems and designing prevention mechanisms usually pale in contrast to the economic, social, and environmental costs of cleaning up afterwards. For instance, the cost to install double hulls on super tankers probably

Sustainable development is the management of resources in such a way that we can fulfill our economic, social, cultural, and aesthetic needs while maintaining the essential ecological processes, biological diversity, and naturally occurring life-support systems in Alberta.

now seems like a pittance compared to the cost of cleaning up after the Exxon Valdez spill.

Our increasing awareness of the connections between the health of the planet and the physical well-being of its human residents has been a painful revelation. And much of this pain has been of our own creation. Climate change; species extinction; alteration of vegetation, drainage, and runoff patterns; contamination of food and water supplies — while these sorts of changes have occurred naturally in the past, they are now happening at a rate unexperienced in human history, a rate related to the rapid growth of the human population. Like all successful species, ours, which is particularly adaptable, has multiplied prodigiously. In the process, we have seriously and, in some cases, irreversibly altered the environment. We have reached the point at which the planet's ability to sustain all of us in a healthful condition is being seriously challenged.

In reality, the Earth's environment has experienced many traumas in its six billion years, some of which could be viewed as far more serious than anything human beings could ever inflict, short of nuclear war. Regardless of what we as a species do to the planet, the environment will survive, albeit in a form different from what we are used to. It is the conditions that support human life that are fragile and which we are seeking to preserve, while we attempt to balance our needs with the Earth's capacity to meet them.

It is clear that people working in the environmental and health fields are strong and natural allies. Linking these two creates a powerful synergism that, if properly channeled with opportunities for creative public participation, can lead to positive, long-lasting changes in the way we view the world and our role in it. The demands on the leaders of our society and on individual citizens will be great, but there is an important part for each of us to play as we prepare for the next decade and the next century.

Chapter Three

Measuring Health and Making the Connections

One pressing need in our efforts to make development sustainable is to find indicators or ways to measure our progress. In particular, finding ways to assess our progress towards achieving health for all is important; with that knowledge, we can decide if we are indeed on the path to sustainable development. Life expectancy, hospitalization rates, suicide rates, and so on have served as general indicators of health. We know these are linked with lifestyle and standard of living (including education, access to medical care, income, and a variety of other socioeconomic factors), and, not surprisingly, these indicators generally show better health in the developed world. But these particular indicators do not reveal much about quality of life, nor do they recognize the importance of health in everyday living. We need to find appropriate indicators for human health just as we do for the environment; it may be that the sale of books or the number of tranquilizer prescriptions tell us as much about our health as infant mortality rates.

An integrated view of health and the environment enables us to see ourselves as part of the natural world, and lays bare the relationships between us and our environment.

An integrated view of health and the environment enables us to see ourselves as part of the natural world, and lays bare the relationships between us and our environment. We rely on the environment to meet our most basic needs. Food, air, water — these are all primary resources that we require to survive; not only must we have these in adequate quantities, but their quality must be high enough that consumption does not threaten health. Indicators such as numbers and causes of death can provide valuable insight into these possible connections. For example, in 1988, the leading causes of death in Alberta (excluding accidents) were heart disease and strokes, cancer, and respiratory disease (Alberta Health 1989). While we must exercise caution in asserting direct links, there is evidence from many sources that some cancers are related to environmental factors. Furthermore, it is possible that the effects of long-term exposure to many chemicals that have appeared since the Second World War may take several decades to show up; people who have been exposed for their entire lifetime are only now in their 30s and 40s.

Many different indicators of environmental health have been proposed. Brown et al. (1988) identified a series of "vital signs" for the earth that have serious implications for human health. Some of these — the state of the ozone layer, groundwater quality, loss of topsoil and forest cover, climate change — are well-known. Others include desertification, quality of lakes and fresh water, species diversity, and sea level changes. These signs, or indicators, change as conditions improve or deteriorate, and attempts have been made to quantify these changes by measuring, for example, the amount of topsoil or forest cover that

is lost annually. While the connections are apparent and we can say with confidence that environmental degradation will affect human health, it sometimes is hard to quantify even the gross effects.

In addition to the obvious links between the environment and our own physical well-being, there are more insidious connections, as alluded to in Chapter Two. One complex and problematic health concern related to the physical environment is long-term exposure to small amounts of a wide array of chemicals and other environmental intrusions such as noise — described by Hall and Chant (1979) as "the enormity of tiny-ness." Individually and in the short term, the effects of these environmental insults may be relatively innocuous; but chronic exposure over a person's lifetime, combined with potential synergistic reactions, may cause deleterious effects that could take years to appear. Cleaning compounds in the home, food additives, pesticides, contaminants in ground and surface waters, pharmaceuticals, motor vehicle exhaust — these represent only a fraction of the things to which we are exposed in our everyday lives.

Although there are various built-in redundancies in higher organisms to increase the chances of survival, there are also many complex and necessary stages in the development process. Exposure at a critical developmental stage to even a minute amount of a relatively innocuous compound can produce serious abnormalities. Apparent increases in the number of children with allergy problems suggests that intake of certain things by the mother may predispose her infant to immune problems without the child necessarily being exposed itself. The effects of such compounds can be extraordinarily subtle, taking a lifetime of exposure to produce effects; or symptoms may appear only in the offspring and not the mothers who were actually exposed. The possibilities are many.

One complex and problematic health concern related to the physical environment is long-term exposure to small amounts of a wide array of chemicals and other environmental intrusions — the "enormity of tiny-ness."

The changing atmosphere is a good example of an environmental issue with major health implications. One aspect of this problem is depletion of the ozone layer, accompanied by increased ultraviolet radiation. With only a small percentage decrease in stratospheric ozone, we can expect to see worldwide concomitant increases in skin cancers and eye cataracts (EPA 1987). Further, ozone is not being depleted at an even rate around the globe; northern and southern regions are affected more than the middle latitudes, with Canada potentially experiencing greater consequences than other, more southerly countries. Although more research is needed, suppression of the immune system is another possible health effect arising from ozone depletion. Damage to crops, forests, and estuaries resulting from increased ultraviolet radiation would have serious indirect effects on human health.

Another frightening aspect of the changing atmosphere is the "greenhouse effect." While precise predictions are difficult to make and there is still some disagreement about the rate and extent, it is likely that global warming will affect health in a direct and dramatic way. Some possible consequences include increased mortality from higher temperatures; spread of diseases into areas that were previously free of them; increased flooding in coastal areas creating waste management and sewage problems; and potential water shortages. Indirect effects related to agriculture and food production and health problems associated with refugees are only some of the predicted impacts of the greenhouse effect.

The quality of the indoor environment has also come under close scrutiny in recent years, especially with efforts to improve energy efficiency. Our efforts to confront and resolve one problem may be creating other, unanticipated problems. Quite well-intended energy conserva-

tion efforts have resulted in buildings that used less energy, but sometimes led to health problems in workers and residents. Inadequate ventilation; poor temperature control; off-gassing from walls, floors, and furniture; and artificial lighting can contribute to drowsiness, reduced attention span and concentration, and headaches. A research report from the Canada Mortgage and Housing Corporation (1983) suggests that some of the emissions observed from indoor furnishings can be toxic under certain conditions. In fact, some people are so sensitive that they are allergic to what we now think of as a "normal" indoor environment, and employers are paying increasing attention to the quality of the indoor environment as they recognize the effect of poor working conditions on employee productivity.

Another environmental issue with health connections is waste management. Urban places generate many hazardous and non-hazardous wastes and these can present serious problems with respect to transportation and disposal. Some communities in North America are now suffering the consequences of carelessness, neglect, and simple ignorance in waste management with, for example, leachates from landfills making their way into groundwater supplies.

Noise is an issue that is more related to the built environment than the natural environment. Both urban and rural residents are exposed to a variety of noises that were uncommon two or three generations ago. Noise can be a human health problem even with intermittent exposure. Its effects on hearing and speech communication are well documented, and it may also lead to physiological changes that affect overall well-being.

So far this chapter has focused on the physical connections between healthy people and a healthy environment. A more integrated view of health means that we must pay attention to emotional and aesthetic needs as well as physical requirements. Protection of the natural and built environments is as important in meeting these non-material needs as it is in meeting our physical or material ones. Everyone feels the need for breathing space from time to time — the need to experience fresh air and open spaces, an opportunity to recharge the batteries. Simply being able to walk to a neighborhood park and read a book without fear for one's safety can help to meet this need. At another level, the preservation of natural areas in the form of parks, wilderness, and reserves helps ensure the survival of wildlife and offers us opportunities to experience nature on its own terms. We care about other species with which we share the planet for reasons that have little to do with economics or commerce; just knowing, for example, that magnificent old-growth forests, beautiful orchids, and lithesome wild cats exist meets some of our very deep-seated non-material needs.

The Question of Responsibility

While the connections between health promotion and environmental protection may be obvious, it is not always so clear where the responsibilities lie. In Alberta, many aspects of environmental protection are addressed by provincial and, to a lesser extent, federal legislation through a system of standards and licensing procedures and other avenues. Two traditional problems, though, have been the fragmentation of responsibilities and the lack of accountability for decisions, points which are discussed in more detail in the draft *Alberta Conservation Strategy: Framework for Action* (Public Advisory Committees 1989). People engaged in health promotion are recognizing that the influence of the medical model of health has rendered health decision making the domain of professionals and that, politically, health has been seen as the responsibility of health ministries, hospitals, and doctors. The significance for healthy living conditions (and thereby healthy lifestyle choices) of policies in the fields of housing, transportation, education, planning, economics, agriculture, recreation, and social services has long been either disregarded or not made explicit.

Furthermore, action at a senior level of government can be slow when changes to the existing system are required. Municipalities have a big advantage in being able to respond to local issues in a manner that is sensitive and appropriate to local conditions and needs. For ex-

ample, municipal representatives can use bylaws as well as economic tools (incentives and disincentives) to enhance environmental protection.

Like environmental protection, health promotion can be addressed effectively by local authorities; in both cases it is imperative that there be cooperation and coordination of initiatives. It is easy for programs to become fragmented and for efforts to be duplicated or to work at cross-purposes without this coordination and sharing of information and expertise. Especially in times of fiscal restraint, we need to find better ways to utilize our human and financial resources.

Several of the trends identified by Naisbitt (1984) are significant for both health and the environment: (1) rediscovery of the innovation and effectiveness that can be achieved from the bottom up, (2) movement away from reliance on institutions to more self-help, self-care, and self-control, and (3) growing desire of people to participate in making decisions that affect them. People are ready and willing to assume more responsibility for their own health and for environmental protection, and leaders who recognize this will be needed at all levels and in all sectors to ride this wave of social change. We already have many of the answers. What is needed is the will to implement solutions that will move us along the path to sustainability.

We also need to find ways to measure our progress and obtain feedback on our efforts. Most of the indicators we have for assessing health might be considered "default" indicators — that is, if they're not present, then you are healthy by default. It is easy to understand why this approach is used, but as we search for ways to measure environmental health and sustainable development, we should question whether this is the model to use. A better approach might be to develop reliable indicators that (1) assess our progress at regular and realistic intervals, and (2) provide constructive feedback that will enable us to adjust our course of action if necessary.

People working together at the community level have successfully resolved a variety of local issues in the past. Ultimately it is at this level that plans for sustainable development must be implemented. The next chapter looks at communities and their role in achieving a healthy and sustainable society.

Chapter Four

Healthy Communities

The Community as an Ecosystem

In many ways, human communities are similar to ecosystems. They are dynamic, responding to change and evolving new forms and new ways to survive as a result. Because we are social creatures, communities are a reasonable way for us to group together to meet our collective needs and share our abilities.

Healthy communities have many niches; as well, they provide a variety of opportunities for individuals to fill existing niches and also to create new ones. Environmental, economic, and social elements in such a community are interconnected and interdependent. Changes in one area will have an effect in other areas, but like a healthy ecosystem, a diverse and vital community will adapt and respond.

A Healthy Community Described

Many Canadians have used the terms "clean" and "safe" when they talk about their vision of a healthy community. These terms apply to the resources people require to meet their basic, day-to-day needs (clean air and water, safe food, open spaces), as well as to the infrastructure and built environment around them (streets, homes, and offices, for example). They also talk about the need for recreational, cultural, educational, and employment opportunities; adequate housing; opportunities for public participation in the decision-making process; and a supportive environment that allows flexibility in lifestyle activities and choices. Access to medical facilities and the things we traditionally associate with health care are also included, but for many people, these are not the primary ingredients in determining community vitality.

In assessing the health of a community, it is also important to consider the subjective perceptions of residents. Peoples' actual health is strongly correlated with how healthy they feel; thus it is likely that their perceptions of how healthy their town or city is, are at least as important as "hard" indicators of community health (Hancock 1987). For example, regardless of what the crime rate is, we also need to know if people are afraid to go out at night, since this level of fear can affect the residents' attitudes about other community matters, and thus the priorities that might be established for the community.

Many Canadians have used the terms "clean" and "safe" when they talk about their vision of a healthy community. These terms apply to the resources people require to meet their basic, day-to-day needs, as well as to the infrastructure and built environment around them. People also talk about the need for recreational, cultural, educational, and employment opportunities; adequate housing; opportunities for public participation in the decision-making process; and a supportive environment that allows flexibility in lifestyle activities and choices.

Because many of the factors that contribute to a healthy community in a broad sense are outside the purview of the formal health care system, the role of local government is of paramount importance. Indeed, one statement that has been put forward by the Canadian Healthy Communities project as an overall goal is "To enhance the quality of life for all Canadians, by involving municipalities and their citizens in ensuring that health is a primary factor in political, social, and economic decision making" (Savage 1989).

Local action for health promotion enables community residents to develop skills and tap the resources of professionals. These professionals can assist residents to identify their capacities and their needs and to develop strategies for change. The process of being involved in change is health promoting in and of itself. The outcome can be a healthier environment with more choices, particularly for those in disadvantaged populations whose health is at greatest risk. Further, community issues can be the focal point for a wide range of public, private, and voluntary sector players to become involved in supporting healthier environments.

Young people can also participate in shaping their community, especially in ways that affect and are affected by them. The KidsPlace project in northeast Edmonton is a good example; students in five areas were surveyed about what they liked and didn't like in their neighborhood. Results have been compiled through the Edmonton Board of Health and a number of changes are already underway in response to the concerns raised by the kids.

One important role, then, for municipalities is to provide an environment in which healthy choices of individuals are supported and complemented by local public policy. Municipalities can do this by implementing no-smoking bylaws, ensuring that speed limits are enforced, providing bicycle paths or lanes for commuting or recreational cyclists, and considering a host of other innovative and creative possibilities. The opportunities are infinite and the ways in which municipalities choose to tackle the matter are as many and varied as the communities themselves.

Working Toward Healthy Communities

The World Health Organization (European Region) formally established in 1986 a "Healthy Cities" project, with over 60 European cities expressing interest. In 1988, Canada became involved in two initiatives designed to promote community health. One, the Canadian Healthy Communities Project (CHCP), has a direct link with "Healthy Cities." The CHCP is a three-year joint venture of the Canadian Institute of Planners, the Canadian Public Health Association, and the Federation of Canadian Municipalities, with funding from Health and Welfare Canada. The project is promoting awareness of the healthy community concept as well as assisting communities in building municipal commitment through projects, communicating and liaising with each other, and evaluating their strategies for promoting health. More than 20 Canadian municipalities are formally participating in this program.

The second initiative is the Strengthening Community Health program (SCH). As part of this project, a Community Health Secretariat was established at the Canadian Public Health Association and, with funding from Health and Welfare Canada, is supporting strategies for local community-level collaboration and increased citizen participation in decision making. The Association is working through its branch public health associations to catalyze action and sharing of resources.

While the ways in which we go about building healthy communities may vary, five components, which were identified in the Ottawa Charter for Health Promotion (1986), can serve as basic guidelines. This Charter arose out of the first International Conference on Health Promotion, held in Ottawa. These components are:

- **Build Healthy Public Policy.** This means putting health on the agenda of policy and decision makers in all sectors and at all levels. It means recognizing that there often are unintended health implications in many policies and programs, and finding ways to integrate these policy decisions to make them work in a coordinated, constructive manner. Diverse but complementary approaches may be required to

implement healthy public policy through the use of a variety of tools: legislation and regulation, incentives, education, and institutional change all should be considered.

- **Create Supportive Environments.** Health concerns pervade all aspects of our lives and cannot be separated from the other goals we set for ourselves and our society. Like health, it is necessary to view environment in a broad sense to ensure that as many aspects as possible are considered. Taking health into account affects the way we shape our work, home, and leisure environments as well as the way we interact with the natural and built environments around us. All need care and maintenance if our living conditions are to be safe, stimulating, satisfying, and enjoyable.
- **Strengthen Community Action.** The whole community has to be involved if the goal of health for all is to be realized. Opportunities must be provided for effective and meaningful citizen involvement in setting priorities, making decisions, and planning and implementing strategies to improve the community in which they live. Commitment to the outcome of any process will only come if there is sufficient participation in the process itself.
- **Develop Personal Skills.** Most people want to take responsibility for their own lives, but sometimes for a variety of reasons this option is temporarily or permanently foreclosed. It is important, though, that this characteristic be reinforced and supported through educational, professional, commercial, and voluntary organizations as well as by public institutions. The development of personal skills enables people to cope and to become more self-reliant, thereby increasing their choices and enriching their lives regardless of the circumstances they face. Learning and adapting to lifelong change are survival skills that no one can afford to be without.
- **Reorient Health Services.** Health is more than freedom from disease, and while there will always be a need for curative services, more resources need to be channeled into health promotion and preventive measures. Changes in the attitudes and organizations of agencies and institutions with a health care mandate will be required if a more proactive and holistic approach to health is to arise. Individuals too must take a more preventive approach and ensure that they act responsibly in their own lives.

The first item on this list, healthy public policy, is the foundation on which the other four rest. Collaboration and cooperation are important for all five, but they are absolutely essential to the development of healthy public policy. Pederson et al. (1988) extend the characteristics of healthy public policy to the realm of policy formulation and implementation in general: "... the characteristics of healthy public policy, namely that it is multisectoral, participative, multidisciplinary, and focuses on issues of equity in health, generate a need for new or revised processes of developing and implementing public policy" (page vii).

Healthy Communities in Alberta

In Alberta, Calgary, Edmonton, and St. Paul are formally associated in some way with the Canadian Healthy Communities network. A number of other communities have projects underway that reflect the principles without calling them "healthy community" initiatives; among these are Red Deer, Lethbridge, and Wanum. Medicine Hat, Leduc, and Lethbridge are all considering more formal alliance with the CHCP.

In Alberta, the two national initiatives (CHCP and SCH) have been combined, and some support is being channeled through the Alberta Public Health Association. A small Healthy Communities – Alberta "catalyst" group has been established, with members from several sectors. This group is now trying to identify Albertans who are active in making their communities healthier. This group will be looking for ways to (1) recognize efforts now underway to create healthier communities, and (2) link people through an electronic network and other means. Communities are being encouraged to develop their own activities and highlight those that reflect the principles of the healthy communities concept. The intent is to be able to influence and support the development of healthy policies at the local and provincial levels.

Another opportunity for Alberta communities to take a look at their future is provided by Vision 2020. This project was initiated by the

Department of Municipal Affairs in September, 1988 and has met with considerable success in municipalities across the province. Many of the vision statements that have been completed by municipalities identify concerns relating to overall quality of life in their communities, including issues of health, environment, and economic development. By focusing on these and looking for ways to meet local needs for development without compromising the environment, health, or general quality of life, municipal representatives and administrators will be in a much better position to develop healthy public policy and integrate their plans for the future.

Sources for more information on the Canadian Healthy Communities Project, the Alberta Healthy Communities project, and Vision 2020 are given in Appendix A. Many professional associations in the health care field have public health committees, and their members often are active in promoting health in communities throughout Alberta. Local Boards of Health and Health Units are also excellent sources of information and readers should consult their local telephone directories or public libraries for these sources.

An Example

The changing atmosphere was used earlier in this paper as an example of an environmental problem with potentially serious health concerns. This example can also be used to illustrate the concept "Think globally, act locally." This is a fundamental underpinning of the Alberta Conservation Strategy and also points out the contribution communities can make with respect to the health of their residents and the health of the planet. If each of the five steps described above were considered in the context of this issue, here are some things that might be done at the community level:

Healthy Public Policy — Local councils could examine their procurement policies in an effort to preferentially purchase products that do not contain chlorofluorocarbons (CFCs), which are contributing to ozone depletion.

Create Supportive Environments — Carbon dioxide emissions, a major contributor to global warming, are a byproduct of fossil fuel combustion. Initiatives that make it easier for residents to use public transit, to car-pool, or bicycle to work would encourage more people to leave their cars at home.

Strengthen Community Action — Communities could build on the networks that already exist to provide and exchange information. The September, 1989 workshop sponsored by the Edmonton Board of Health and the Environmental Resource Center was very successful. It brought many local community leaders together and gave them ideas about what they could do to conserve energy and recycle materials, through energy audits and waste audits of their community halls, schools, and residences.

Develop Personal Skills — Providing people with information about what they can do to make their homes more energy efficient is one way to help them exert control and make a contribution through their own lives. Alberta Energy's Energy Conservation Branch ran a series of seminars and produced helpful literature for homeowners; recent severe cutbacks may diminish their ability to continue this service.

Reorient Health Services — Explaining to people the importance of avoiding direct exposure to the sun and the need to use sunscreen products, hats, and so on to help prevent the incidence of skin cancers, would focus public attitudes on preventive health measures.

Chapter Five

Towards the Goal: Healthy Communities and Sustainable Development

Like sustainable development, building healthy communities is a process that never truly is finished. We must not allow ourselves to be so satisfied that we say, "That's enough; now we can stop because we have achieved sustainable development." Or, "This is the end point, now our community is healthy, and we can put our efforts elsewhere."

The concept of sustainability embraces both conservation of resources and their economic development. But the human resource must also be accounted for in the conservation and development process. Without a population that is healthy — physically, mentally, and spiritually — we cannot ever hope to design and implement measures that will take us along the path to a sustainable and secure future.

The world has experienced amazing changes in the last nine decades, yet it is likely that there will be more change in the remaining years of this century than in all the years previous. We must be ready. While we may not be able to predict precisely what the changes will be, we know for sure they will come. Our future quality of life will depend on our ability to adapt and remain flexible in the way we adjust — to "roll with the punches," and be confident that we can deal with change in a positive, healthy way.

One of the beauties of our strategy for sustainable development is that it represents an effort to build into the system a mechanism for dealing with change — a set of fundamental principles and a decision framework that can point us in the appropriate direction. The decision framework itself helps us anticipate the effects of our actions and then, according to a set of principles, make the sustainable choices. It is sufficiently flexible and dynamic that it leaves the door wide open for creative and innovative solutions and for modifications to these solutions as conditions change. In essence, the Alberta Conservation Strategy is a vehicle — a means — for moving us toward sustainability.

Many of the same circumstances apply to the development of healthy communities. For one thing, it is not necessary to be a health expert or an environmental expert to contribute to these processes. Everyone has a role to play and universal involvement is necessary to achieve our objectives. Industries, governments, businesses, institutions, and individuals need to be responsible and accountable for their day-to-day decisions and actions. Furthermore, the "anticipate and prevent" maxim clearly is preferred to curative responses to disease or environmental damage. This approach also minimizes risks to human and environmental health. Promoting health goes beyond prevention, to supporting a more positive position in which well-being is actually improved. Perhaps this should be the ultimate goal of environmental protection as well.

Common Goals and High-Priority Actions

The Report of the World Commission on Environment and Development (the Brundtland Report) notes that "good health is the foundation of human welfare and...a broad-based policy is essential for sustainable development" (WCED 1987: 109). Further, "health policy cannot be

conceived of purely in terms of curative or preventive medicine, or even in terms of greater attention to public health. Integrated approaches are needed that reflect key health objectives in areas such as food production; water supply and sanitation; industrial policy, particularly with regard to safety and pollution; and the planning of human settlements" (WCED 1987: 109-110).

Maintaining or improving the quality of life in Alberta's communities is an essential element of any strategy for sustainable development. Physical and social environments that are conducive to all-round health and well-being pay off economically too. "If communities wish to attract new people and new industry, then an active role to protect local resources is just common sense. Both new residents and new companies are attracted to clean, healthful communities" (Harless 1988).

Providing opportunities for individuals to participate in the decision-making process increases their commitment to the outcome and can empower them to assume more responsibility for their actions. Ensuring access to information and facilitating the exchange of information are crucial components in the promotion of health and sustainability. People need to know how they can make choices that will benefit them and their environment, now and in the future.

But fundamental to the entire process is the need for healthy public policy. Without this, all other strategies will be undermined and, although they may not fail, their effectiveness will surely be diminished. Establishing healthy public policy means a commitment to examine our traditional ways of doing business to ensure that present and proposed policies and programs are not counterproductive; it also means designing new ones that complement the healthy, sustainable decisions made by individuals and the private sector.

Many of our current approaches to developing legislation and policies are compartmentalized and fragmented, making it very difficult to integrate information and consider the effects of a potential decision. Incremental decision making often is another obstacle to healthy public policy. It takes far more courage to abandon a problematical policy direction and start over than to continue making small modifications and hope things will get sorted out eventually. Elements of "turf protection" have also crept into many aspects of government and health institutions at all levels. While these evolutions are explainable, they can no longer be used as excuses for maintaining the status quo. Making the required changes may well be difficult and painful, but it is essential if we are to respond effectively to change, and take an active role in shaping our future.

Some progress is being made in overcoming these obstacles in the field of environmental policy. Public consultation, cross-sectoral management and collaboration, and establishing and maintaining good communications with affected parties are contributing to better environmental decisions. There is still a long way to go, but adherence to sustainable resource management principles will help us move along the road to sustainable development.

A major turning point for environmental policy development in Canada may turn out to be the 1987 report of the National Task Force on Environment and Economy. There are many similarities between the environmental movement and the health promotion movement; to achieve dialogue and action by the stakeholders in these respective groups would be a step in the right direction.

Chapter Six

Conclusion

Health makes environmental concerns relevant to our daily lives, bringing the environment "in through the front door," as it were. If any issue can persuade people to care about what they are doing to the environment, it should be health — their own and that of their children. While it is unlikely that human activities, short of nuclear war, will cause our species to go extinct, the possibilities for planetary destruction and spoilage are mind-numbing. Long before the last human being disappeared beneath a mountain of garbage or died of cancer, conditions would be so intolerable that the value of existing at all would have to be questioned. We may be seeing the first warnings in Africa where wars and overpopulation, among other things, have contributed to environmental and, eventually, human demise.

We would like to think it is not too late. The developed countries, with 25 percent of the world's population, consume 80 percent of its resources. Our impact as consumers is undeniable, but this may also give us hope. Coordinated political and individual action on a global scale is desperately needed, a need which comes at a time when interest in the environment has never been greater in the developed world. By bringing the two powerful interests of health and environment together, the effect of the whole can be greater than the individual parts. Open discussion and debate to emphasize and clarify the links empowers individuals to do two things: first, they can then make better decisions in the areas over which they have some control (their homes, perhaps their workplaces, their community); and second, they can work together more efficiently and effectively to bring about broader societal changes in support of sustainable development — to work towards the goal of healthy people on a healthy planet.

Bibliography

Alberta Health. 1989. *Vital Statistics Annual Review 1988.*Alberta Health, Division of Vital Statistics. Edmonton. 55 pages.

Ashton, John and Howard Seymour. 1988. *The New Public Health: The Liverpool Experience.* Philadelphia: Open University Press.

Brown, Lester, Christopher Flavin, and Edward Wolf. 1988. "Earth's Vital Signs." *The Futurist* 22(4):13-20.

Canada Mortgage and Housing Corporation. 1983. *Indoor Air Pollution and Housing Technology.* Research Report. CMHC. Ottawa. 295 pages.

Decima Research. 1987. *Report to Environment Canada on Nation-Wide Survey on Attitudes toward Environmental Issues and Priorities.* Decima Research. Toronto. 60 pages.

Environmental Protection Agency (EPA). 1987. *Unfinished Business: A Comparative Assessment of Environmental Problems.* U.S. EPA. Washington. var. pag.

Hall, Ross H. and Donald A. Chant. 1979. *Ecotoxicity: Responsibilities and Opportunities.* Report No. 8. Canadian Environmental Advisory Council. Ottawa. 32 pages.

Hancock, Trevor. 1987. "Healthy Cities: the Canadian Project." *Health Promotion,* Summer, 1987. pp. 2-5.

—— 1989. "Sustaining Health: Achieving Health for All in a Secure Environment." Background Paper for Health, Environment, Economy — Strategies for a Sustainable Future. A Conference at York University, April, 1989, Toronto. Sponsored by Health and Welfare Canada and Environment Canada.

Harless, James D. 1988. "The Case for a Local Environmental Agenda." *Journal of Environmental Health* 51(1): 54.

Naisbitt, John. 1984. *Megatrends.* New York: Warner Books. 333 pages.

National Task Force on Environment and Economy. 1987. *Report of the National Task Force on Environment and Economy.* Canadian Council of Resource and Environment Ministers. 18 pages.

Ottawa Charter for Health Promotion. 1986. Statement from an International Conference on Health Promotion, November 17-21, 1986, Ottawa, Ontario, Canada. Sponsored by World Health Organization, Health and Welfare Canada, and Canadian Public Health Association.

Parfit, Jessie. 1986. *The Health of a City: Oxford 1770 to 1974.* Oxford: Amate Press.

Pederson, A. P., R. K. Edwards, M. Kelner, V.W. Marshall, and K.R. Allison. 1988. *Coordinating Healthy Public Policy, An Analytic Literature Review and Bibliography.* Health Services and Promotion Branch Working Paper. Health and Welfare Canada. Ottawa. 165 pages.

Public Advisory Committees. 1989. *Alberta Conservation Strategy: Framework for Action. A Draft for Public Discussion.* ECA89-PA/CS-D1. Environment Council of Alberta. Edmonton. 70 pages.

Rachlis, M. and C. Kushner. 1989. *Second Opinion — What's Wrong with Canada's Health Care System and How to Fix It.* Toronto: Collins. 371 pages.

Savage, John. 1989. "Healthy Communities." Presentation to the Urban Environment Sub-commitee of the Public Advisory Committees to the Environment Council of Alberta. April, 1989. Edmonton.

Tickell, Sir Crispin. 1989. "Environmental Refugees — The Human Impact of Global Climate Change." National Environment Research Council Annual Lecture. *NERC News* No. 10:14-20.

Urban Environment Sub-committee of the Public Advisory Committees to the Environment Council of Alberta. 1988. *Environment by Design: The Urban Place in Alberta.* ECA88-PA/CS-S3. Environment Council of Alberta. Edmonton. 43 pages.

World Commission on Environment and Development (WCED). 1987. *Our Common Future.* WCED. New York: Oxford University Press. 383 pages.

Appendix A

Sources of Information

Canadian Healthy Communities Project
126 York Street
Ottawa, Ontario
K1N 5T5
Phone: (613) 233-1617

Healthy Communities – Alberta
Ann Goldblatt, Alberta Public Health Association
c/o Edmonton Board of Health
Suite 500, 10216 - 124 Street
Edmonton, Alberta
T5N 4A3
Phone: (403) 482-1965

Vision 2020
Alberta Municipal Affairs
2nd Floor, Financial Building
10621 - 100 Avenue
Edmonton, Alberta
T5J 0B3
Phone: (403) 422-2020

Appendix B

Members of the Pollution Sub-Committee

The following people served on the Pollution Sub-Committee during the preparation of this paper:

Mr. Mike Andresen — Fort Saskatchewan Regional Industrial Association
Mr. Norman Carlson — City of Wetaskiwin
Dr. Munawar Chaudhry — Lakeland College (Vermilion Campus)
Dr. Ken Cummins — Mount Royal College
Mr. Bob Gillespie — Strathcona Industrial Association
Mrs. Joanne Hedenstrom-Hayden — Unaffiliated
Mrs. Shirley Henderson — Alberta Association of Registered Nurses
Mr. Trevor Hodge — Alberta Public Health Association
Mr. Menno Homan — Southern Alberta Institute of Technology
Mr. Bill Irwin — Canadian Institute of Public Health Inspectors (Alberta Branch)
Mr. Wendell Koning — Citizens for Public Justice
Dr. Martha Kostuch — Unaffiliated
Mr. Harry Lillo — Alberta Energy Resources Conservation Board
Dr. Jeanette MacQuarrie — Alberta Medical Association
Dr. Robert Mutch — Medicine Hat College
Dr. Paul Ramalingam — Canadian Union College
Mr. Ray Romanetz — City of Drumheller
Mrs. Judy Roschlaub — Alberta Pharmaceutical Association
Mr. Bill Ross — Unaffiliated
Dr. Farooq Siddiqui — Northern Alberta Institute of Technology
Mr. Dennis Thomas — Law Society of Alberta
Dr. Lub. Wojtiw — Canadian Meteorological and Oceanographic Society
Ms. Chen Yan Hua — Students' Association of Mount Royal College
Ms. Mary Anne Yurkiw — Alberta Lung Association

Science Advisory Committee Liaison Member — Dr. Robert Lane

About Our Logo

Alberta

ENVIRONMENT COUNCIL OF ALBERTA

Over the past two decades, the logo of the Environment Council of Alberta has shown three overlapping triangles as representing the foundations of our environment: land, air, and water. These triangles also represent the three groups with which the ECA interacts: industry, government, and the public. The three triangles intersect to form a circle symbolizing the biosphere. The small triangle in the centre of the circle symbolizes these three groups joining together to work for the conservation of our environment.

In 1980, the overlapped triangle motif was used by the World Conservation Strategy to represent the three primary objectives of that document. The Alberta Conservation Strategy incorporated the triangle motif into its logo by overlaying the WCS triangles onto a three dimensional outline of Alberta. This combination of triangles with the readily identifiable outline of provinces, nations, and regions has marked conservation strategies around the world.